USER MANUAL

10.1” Touch Panel PC
PMW10ID3S-H1-4RT

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American Industrial Systems, Inc.
http://www.aispro.com

Quick solution for:
- Building automation
- Access control
- Room Information Display

User Guide

10.1” Multi-Touch Panel PC
PMW10ID3S-H1-4RT

Multi Touch Analog Resistive 4-wire
Fanless All-in-one Panel PC
Ultra-low power with Intel Atom D2550 processor

Automation: I/O Ports for HMI/SCADA

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FCC rules:

The test results show that this device meets the FCC rules. Those limits are set to protect residential areas from the devices with harmful emission. This device will produce, use and radiate radio frequency energy. In addition, failure to follow the user's manual to install or use this device might produce harmful interference with radio communication. Notwithstanding the foregoing, it does not guarantee that this type of harmful interference does not occur in some special installations. The interference caused by this device to the reception of radio or television signals may be verified by turning it on and off. Any changes or modifications to this TFT LCD would void the user's authority to operate this device.

Important Recycle Instruction:

Hg Lamp(s) inside this product contains mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG

Usage Notice

⚠ ***Warning!***

To prevent the risk of fire or shock hazards, do not expose this product to rain or moisture. Do not open or disassemble the product as this may cause electrical shock.

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's manual to maximize the life of your unit.

Do:

- Turn off the product before cleaning.
- Touch screen surface may be cleaned using a soft clean cloth moistened with mild window glass commercial cleaners or 50/50 mixture of water and isopropyl alcohol.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

Don't:

- Do not touch the LCD Display screen surface with sharp or hard objects.
- Do not use abrasive cleaners, waxes or solvents for your cleaning.
- Do not operate the product under the following conditions:
    - Extremely hot, cold or humid environment.
    - Areas susceptible to excessive dust and dirt.
    - Near any appliance generating a strong magnetic field.
    - In direct sunlight.

Introduction

Applications:

Quick solution for:

- Building automation
- Access control
- Room Information Display

Integrated possibilities:

Automation and Security for Home and Building

HVAC environmental control

Factory automation

Industrial HMI and SCADA

Self Service Kiosk in Hotels

Hospitals, airports, and Ticket vending

Vehicle mounted

Equipment and device control

Education

Testing center

About PMW10ID3S-H1-4RT

PM = Panel Mount
W = Wide width ratio of 16:10
10 = 10.1 Diagonal viewing area in inches
ID3S = Intel Atom duel core
4RT = 4 wire Resistive Touch

Features include:

- Analog 4 wire Resistive touch screen
- Active matrix TFT LCD technology
- 1024 x 600 WSVGA resolution
- 10.1" viewable display area
- Viewing angle H: 140°, V: 110°
- Contrast Ratio 500:1
- 75 x 75 VESA Mount
- Dimensions (W x H x D) 286 x 182 x 49.5 mm
- OS: Windows Embedded Standard 7 or Windows XP Embedded

Back Panel I/O Port

1 x Power Switch
2 x RJ-45 (LAN)
1 x RS-232 only
2 x USB 2.0
1 x VGA
1 x RS-232/422/485 (configurable)
1 x Terminal Block (Phoenix Type)

Bottom side

Power Switch

AC power switch

Ethernet interface

The Motherboard is equipped with Broadcom BCM57780 chipset which is fully compliant with the PCI 10/100/1000 Mbps Ethernet protocol compatible. It is supported by major network operating systems. The Ethernet ports provide two standard RJ-45 jacks.

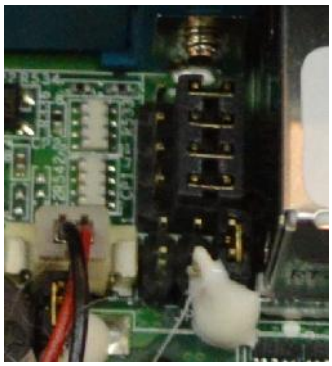
Why 2 Ethernet ports

- LAN data collection / storage
- WAN separate and secure
- PLC / machine control interface
- Camera for security or machine vision

Serial COM port

COM1 port supports RS232.

COM2 port supports RS232/422/485, factory jumper setting is to RS232.



USB ports

2 x USB 2.0 ports support hot plug-in connection.

VGA port for 2nd industrial monitor

Extended monitor support:

- Add camera to watch for deliveries from you work space
- Add machine vision inspection to the machine process
- Use of the Panel PC without blocking the view of critical Gages
- Add remote viewing outside the control room
- Locate the second display closer to the action
- Room Information Display

Speaker ports top side

Mother Board

Product Overview

The panel PC is integrated with Intel® NM10 express chipset and Atom D2550 Processor. The Intel Atom Processor with 32nm low power design enables down to 50% less average power consumption and the chipset delivers up to 4x improvement in graphics performance and enables up to 50% higher data transfer bus speed rate. Intel Graphic Accelerator 3600 Integrated Graphics Engine, Broadcom BCM57780 GbE controller

Thus, the ID32 SBC is designed to satisfy most of the applications in the industrial computer market, such as Gaming, POS, KIOSK, Industrial Automation, and Programmable Control System. It is a compact design to meet the demanding performance requirements of today's business and industrial applications.

BIOS

AMI BIOs (detailed instructions exist on the CD shipped with the panel)

Just after power on, pressing the Del key will open the BIOs configuration application.

Main Memory

2GB DDR3 800/1066 MHz, up to 4GB

Chipset

Intel® NM10 express chipset

Storage Device

160GB Hard Disk Drive

Dimensions

~286 x 182 x 50mm (also see: Product Mechanical Drawings)

Environmental Requirements

Temperature - Operating: 0°C to 45°C (32°F to 113°F)

Temperature - Storage: -20°C to 60°C (-4°F to 140°F)

Humidity (Non-condensing) - 30 to 90% RH @ 40° C

Vibration Protection - 5 to 500 Hz, 1 Grms random vibration

General

Input Power 12 Terminal Block (Phoenix Type)

Approvals

Designed for CE/FCC

Display type

10.1” diagonal, Active matrix TFT LCD

Antiglare, Hard-Coating (3H) with EWV film
Frame Rate average 60 Hz

Aspect Ratio

16:10 (Widescreen)

Active/Area

220.416 (H) x 129.15 (V) mm

Native (Optimal) Resolution

1024 x 600 WSVGA

Number of Colors

262K

Brightness (Typical)

LCD Panel: 200 nits

PCT Touch: 160 nits

Contrast Ratio

500:1

Touch Screen

Transmittance 80 %
Hardness 3H (JIS-K5600-5-4)

Viewing Angle

Horizontal: 140° Total

Vertical: 120° Total

Touch Technology

Analog Resistive 4 wire

Features and Benefits

▪ Portfolio of widescreen Window-based PCs for operator monitoring and control

▪ Flexible, reliable, and ruggedized for open platform HMI/SCADA

▪ All steel construction for harsh and industrial environments

▪ Robust design with aluminum NEMA 12, NEMA 4, IP52, IP54, IP65 ratings

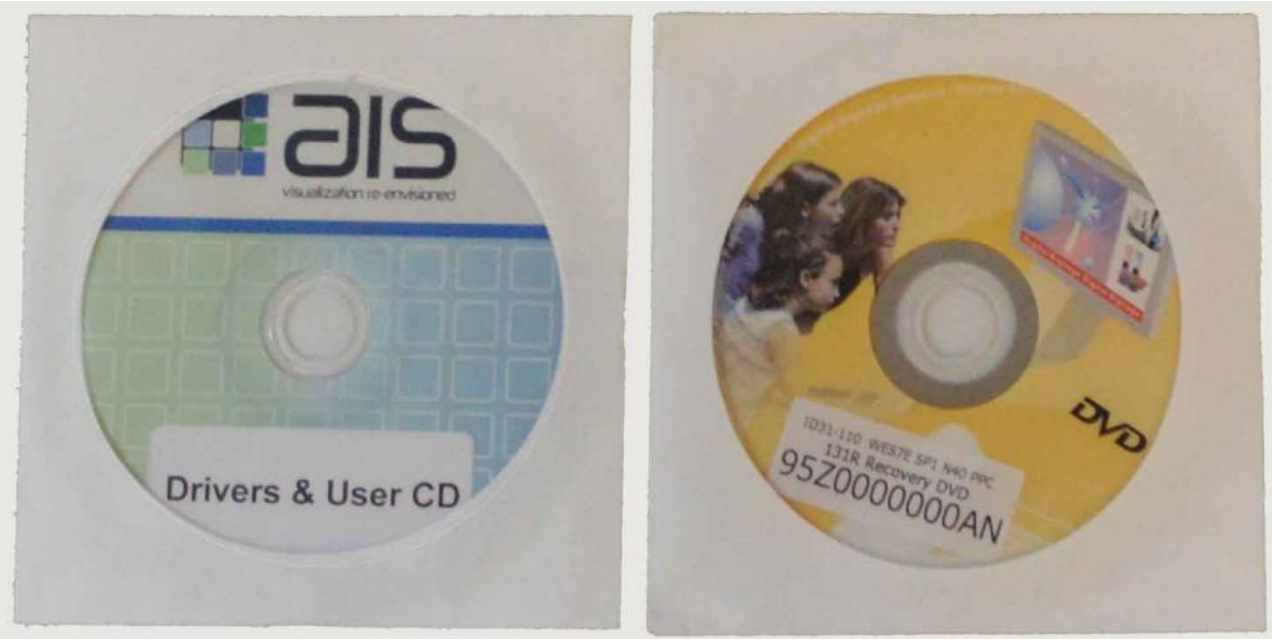
▪ Technical support for drivers, hardware, troubleshooting procedures and general system issues

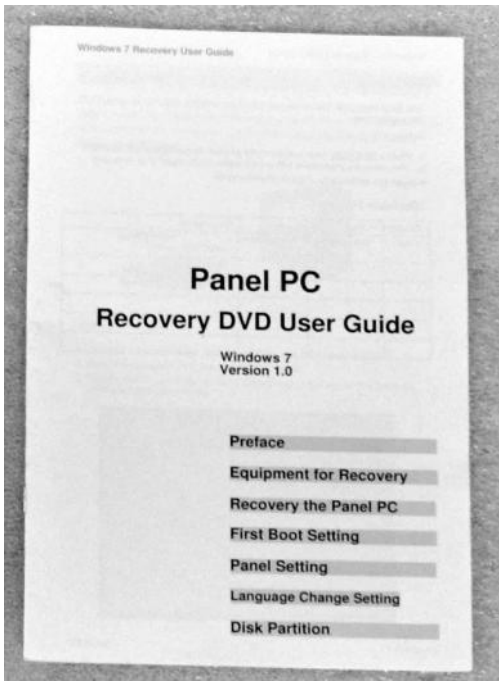
▪ Customer service and sales support for product selection, order management, and warranty status

Package Content

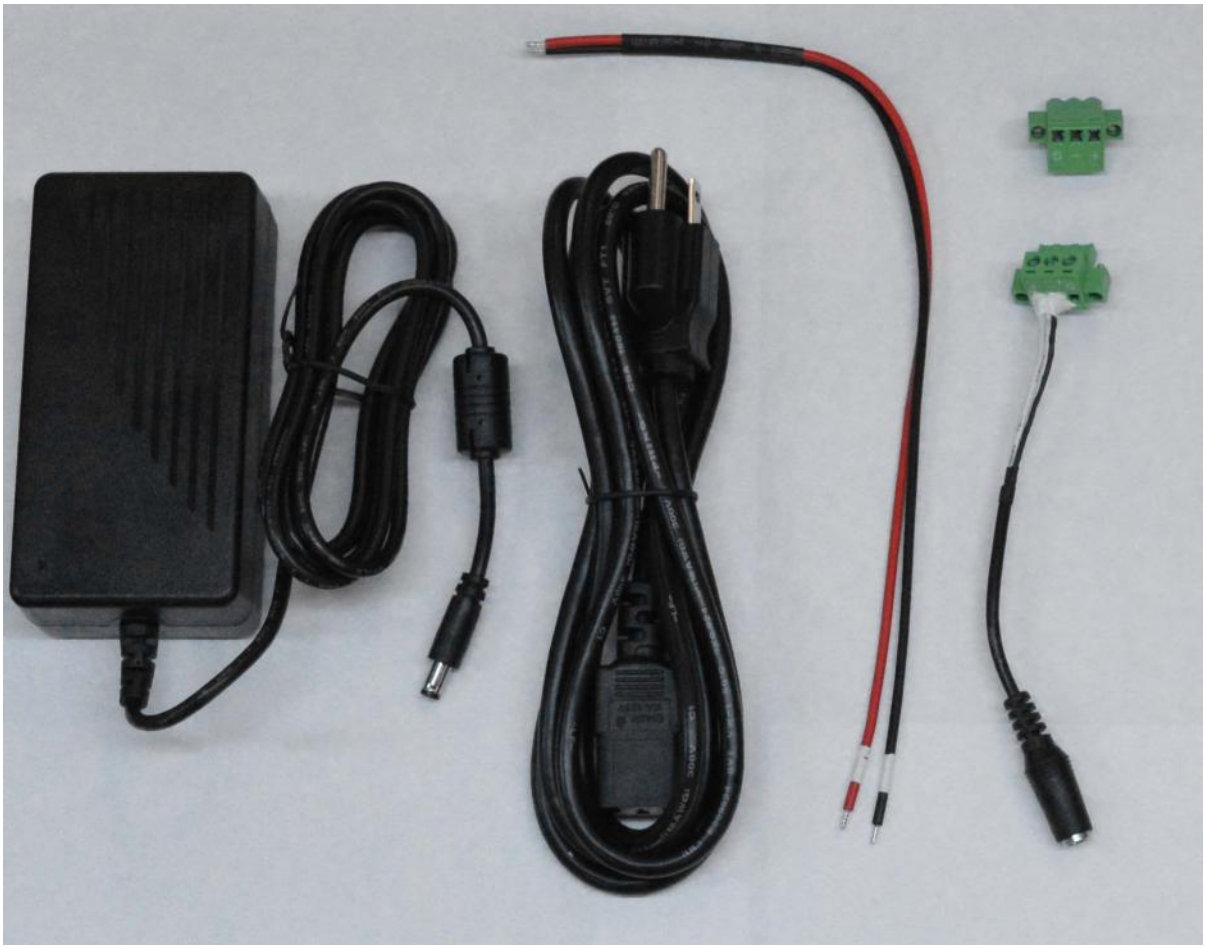
Driver CD for touch screen and other features

Recovery CD for restoring back to factory condition





Paper back recovery manual



12 VDC Power supply

Minimum power requirement is 24 watts

Standard AC Power cord

American 3 Prong

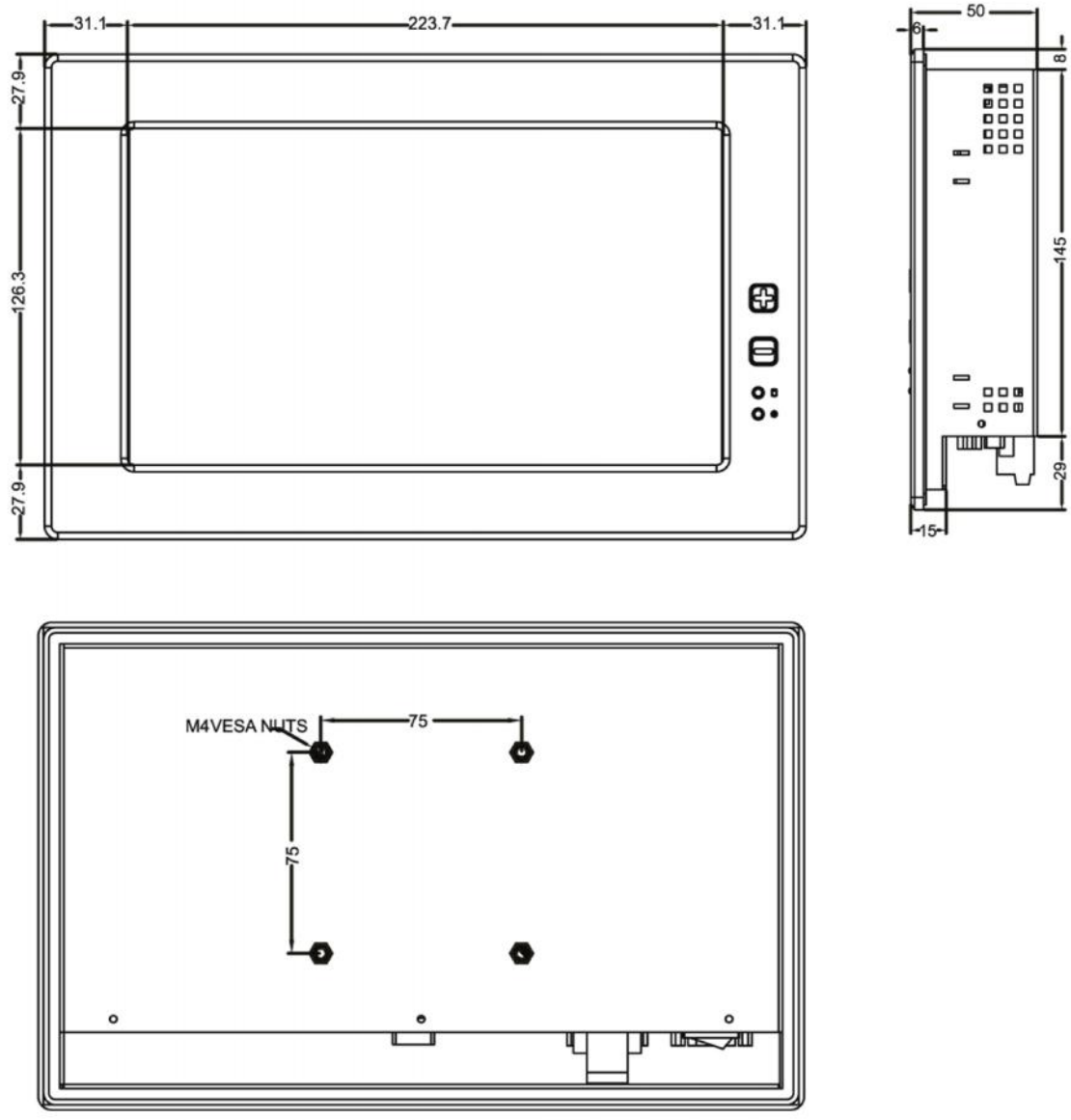
Phoenix to power supply prewired

This connector has adhesive as a strain relief.

Wire for screw connectors

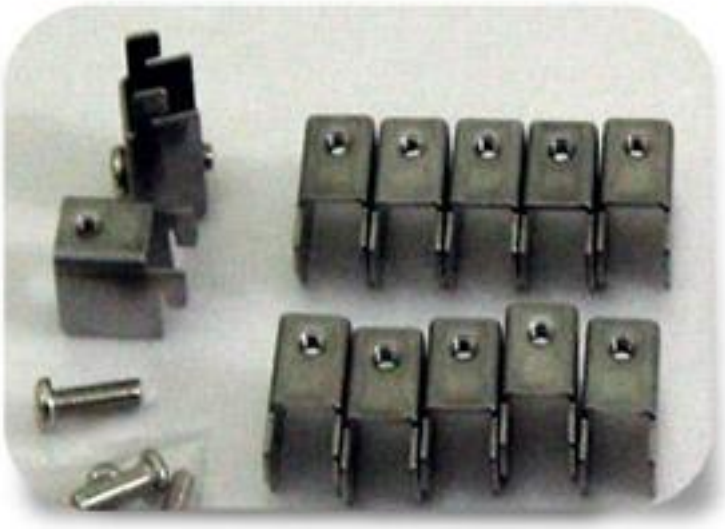
This is used when installed in an environment that already has 12 volts available. A second phoenix connector is supplied without adhesive.

Product Dimension

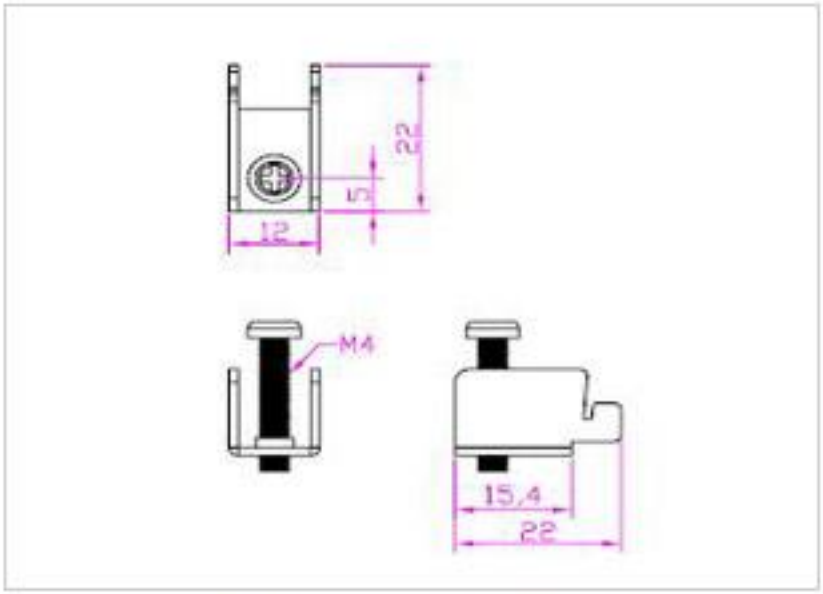


Mounting the Panel PC

Panel mount hardware

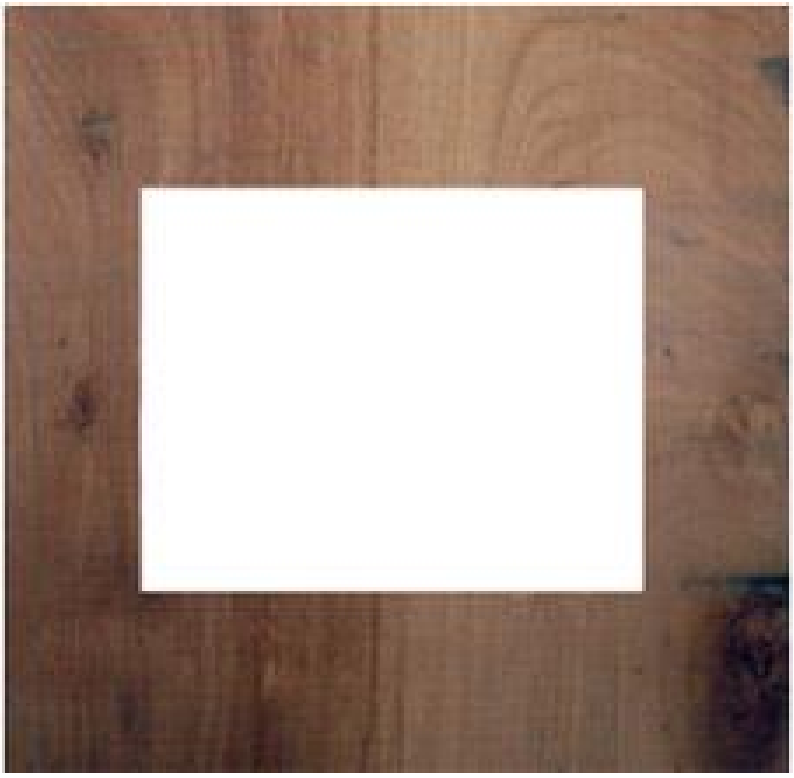


Dimensions

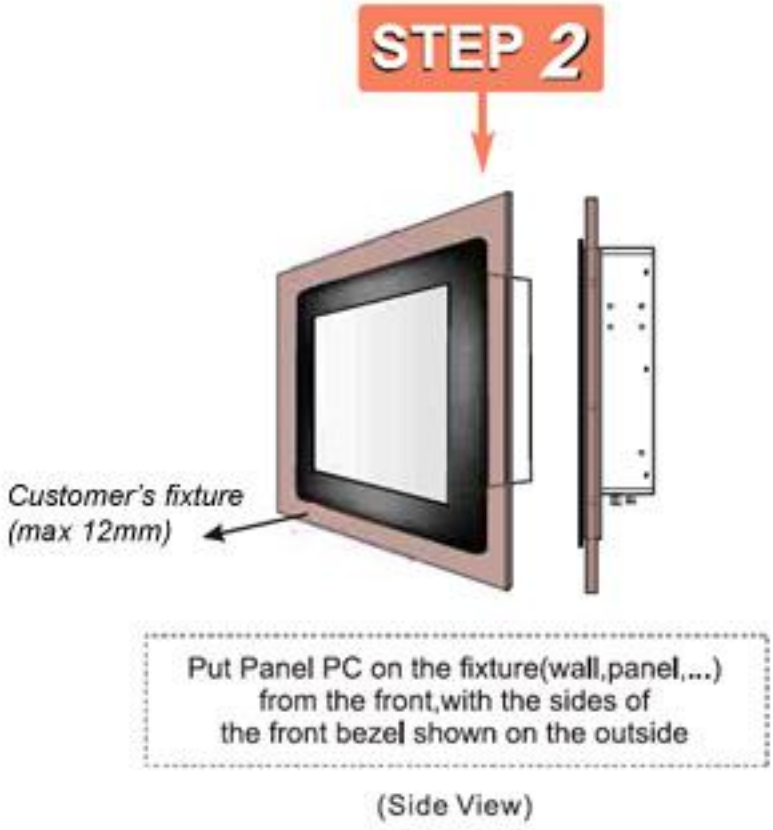


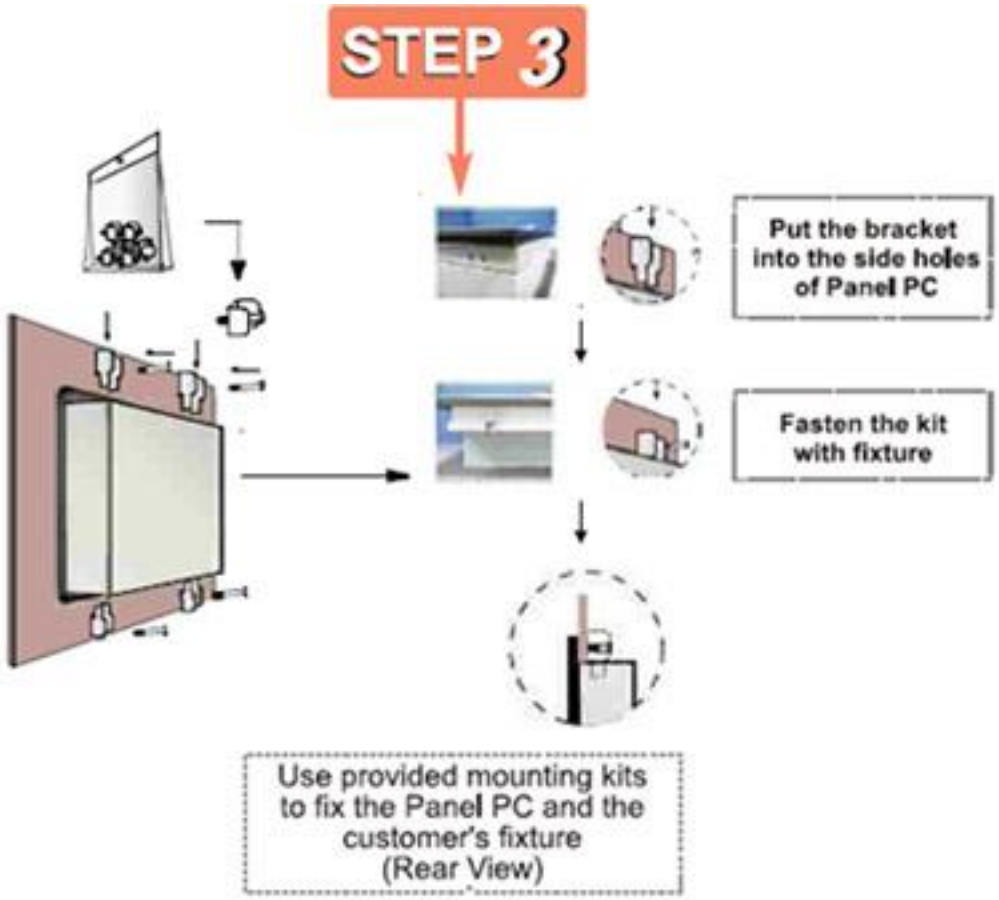
The Dimension of mounting kits

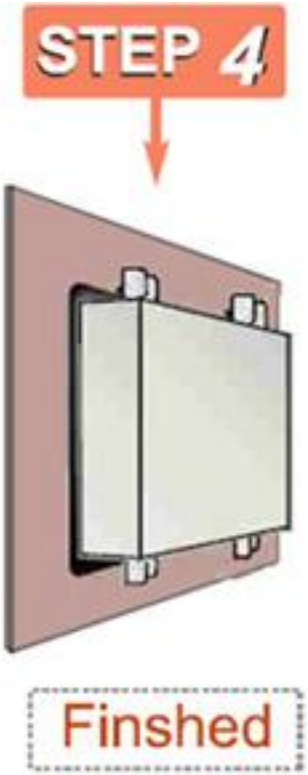
Make a rectangle hole to match the panel dimensions.



To use the mounting clips, panel must not exceed 12 mm.




STEP 3
Put the bracket into the side holes of Panel PC
Fasten the kit with fixture
Use provided mounting kits to fix the Panel PC and the customer's fixture
(Rear View)


STEP 4
Finshed